

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Matthew Demier on April 2, 2009.

The application has been amended as follows:

Claim 1. A dry powder inhaler, comprising: a mouthpiece for dispersing pharmaceutical drug formulations, a Laval nozzle communicating with the mouthpiece, an inlet channel, whereby inhalation air is drawn in through the inlet channel, and a swirling flow of the inhalation air is created between the inlet channel and the mouthpiece, a multidose blister container for supplying a powder formulation in communication with the Laval nozzle, and an auxiliary energy source in the form of a pressure medium system in communication with the multidose blister container for supplying the powder formulation, wherein upon activation of the pressure medium system, a gaseous pressure medium is released into the multidose blister container for supplying the powder formulation, and forms an aerosol with the powder formulation in such a way that powder particles are present in dispersed form within the gaseous pressure medium prior to entering the Laval nozzle, entering the mouthpiece, and leaving the dry powder inhaler.

Claim 18 has been cancelled.

Claim 21. The dry powder inhaler according to claim 481, characterized in that a channel that guides an aerosol flow and the inlet channel for the inhalation air empty into a swirl chamber, whereby the aerosol is directed from the swirl chamber to the Laval nozzle.

Claim 35. A dry powder inhaler, comprising: a mouthpiece for dispersing pharmaceutical drug formulations, a Laval nozzle communicating with the mouthpiece, an inlet channel, whereby inhalation air is drawn in through the inlet channel, and a swirling flow of the inhalation air is created between the inlet channel and the mouthpiece, a multidose blister container for supplying a powder formulation in communication with the Laval nozzle, and an auxiliary energy source in the form of a pressure medium system in communication with the multidose blister container for supplying the powder formulation, wherein upon activation of the pressure medium system, a gaseous pressure medium is released into the multidose blister container for supplying the powder formulation, and forms an aerosol with the powder formulation in such a way that powder particles are present in dispersed form within the gaseous pressure medium prior to entering the Laval nozzle, entering the mouthpiece, and leaving the dry powder inhaler.

Claim 36. The dry powder inhaler according to claim 35, characterized in that the Laval nozzle and an inlet channel for inhalation air are arranged in such a way that an aerosol flow leaving the Laval nozzle and the inhalation air are directed in opposite directions.

Claim 37. The dry powder inhaler according to claim 35, characterized in that a channel that guides an aerosol flow and inlet channels for inhalation air empty into a swirl chamber, whereby the aerosol is directed from the swirl chamber to the Laval nozzle.

Claim 38. A dry powder inhaler, comprising: a mouthpiece for dispersing pharmaceutical drug formulations, a Laval nozzle communicating with the mouthpiece, an inlet channel, whereby inhalation air is drawn in through the inlet channel, and a swirling flow of the inhalation air is created between the inlet channel and the mouthpiece, a multidose blister container for supplying a powder formulation in communication with the Laval nozzle, and an auxiliary energy source in the form of a pressure medium system in communication with the multidose blister container for supplying the powder formulation, wherein: the mouthpiece comprises a flow rate sensor that generates an input signal for the pressure medium system, and upon activation of the pressure medium system, a gaseous pressure medium is released into the multidose blister container for supplying the powder formulation, and forms an aerosol with the powder formulation in such a way that powder particles are present in dispersed form within the gaseous pressure medium prior to entering the Laval nozzle, entering the mouthpiece, and leaving the dry powder inhaler.

Claim 39. The dry powder inhaler according to claim 38, characterized in that the Laval nozzle and an inlet channel for inhalation air are arranged in such a way that an aerosol flow leaving the Laval nozzle and the inhalation air are directed in opposite directions.

Claim 40. The dry powder inhaler according to claim 38, characterized in that a channel that guides an aerosol flow and inlet channels for inhalation air empty into a swirl chamber, whereby the aerosol is directed from the swirl chamber to the Laval nozzle.

Claim 41. A dry powder inhaler, comprising: a mouthpiece for dispersing pharmaceutical drug formulations, a Laval nozzle communicating with the mouthpiece, an inlet channel, whereby inhalation air is drawn in through the inlet channel, and a swirling flow of the inhalation air is created between the inlet channel and the mouthpiece, the Laval nozzle including a narrowing inlet section, a section of narrowest cross-section, and a widening outlet section, a device for supplying a powder formulation in communication with the Laval nozzle, an auxiliary energy source in the form of a pressure medium system in communication with the device for supplying the powder formulation, wherein: upon activation of the pressure medium system, a gaseous pressure medium is released into the device for supplying the powder formulation, and forms an aerosol with the powder formulation in such a way that powder particles are present in dispersed form within the gaseous pressure medium prior to entering the Laval nozzle, and the powder particles achieve a supersonic speed at an end of the narrowing inlet section of the Laval nozzle and are decelerated to subsonic speed in the widening outlet section of the Laval nozzle.

REMARKS

Claims 1, 21, 35, 36-41 are allowable as amended above.

Claim 18 has been cancelled as shown above.

Claims 2-6, 8, 11, 15-16, 22-34 and 43-44 were previously cancelled.

Claims 7, 9-10, 12-14, 17, 19-20 and 42 are allowable as they were presented in the amendment filed January 22, 2009.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLINTON OSTRUP whose telephone number is (571)272-5559. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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